

HOW TO HANDLE HATS.

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How To Handle Hats

By G. H. WOODROW

THE ONLY WORK PUBLISHED ON THIS SUBJECT

An up-to-date book giving information regarding the

HANDLING
RENOVATING
SELLING
TALKING
CLEANING
SHAPING
IRONING and
BLOCKING
H A T S

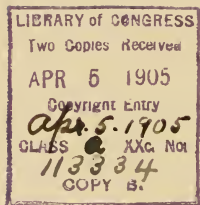
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PREFACE.

This book is written in such language, that the man who knows little or nothing of the hat business can thoroughly understand the terms used and instructions given; and for this reason I ask the indulgence of the experienced hatman when he reads the explanations which to his experienced knowledge may seem superfluous.

The claims for this book are:

First—It gives the most complete and comprehensive description of modern hat making that has ever been issued in book form; and

Second—It gives more valuable points about hats; how to get the best results; how to make an old hat look like new, etc., etc., than has ever been published before.

Third—Ancient History has all been left out. It gives what the man of to-day desires to know, viz., What is doing to-day, and what to do to-morrow.

Times and conditions change in this progressive century, and all methods heretofore described in various publications regarding the manufacture and making over of hats are as obsolete to-day as a wooden warship.

In this little treatise I have not thought it best to use a large flow of words to describe the various operations—and by that means extend it to large proportions—but have endeavored to so condense the instruction and information given to fit the requirements of a time-saving age; at the same time not sacrificing clearness and accuracy to that of brevity.

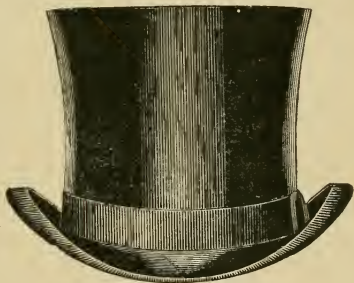
Should you desire any point explained or wish further information write the author.

How to Handle Hats.

HOW SILK HATS ARE MADE.

Muslin is cut up into lengths of about seven feet and immersed in "water stiffening," composed of shellac, and stretched on frames to dry.

The muslin used on the brim is heavier than that used on the crown, and is framed four ply; one piece being put on the frame at a time, then the whole is patted and rubbed until they all stick together. Medium

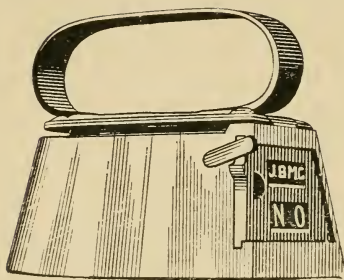


MEDIUM BELL, FIVE-EIGHTHS.
D'ORSAY CURL, MEDIUM SET.

and one ply side crown pieces are cut bias, brim and tip are cut in squares.

The piece for the side crown is cut bias to fit the block, and the edges are stuck together with a hot iron, and the block inserted; as the block is larger at the tip than in the band where the

hat fits, it is made in five pieces and used as fol-



HAT IRON ON SHELL.

lows: First, the two ends are inserted, then the sides, and the center piece last; the center piece is larger at the bottom than at the top, the other pieces are larger at the

top than at the bottom.

There is a margin at the top of the side crown piece which is ironed over on the tip; the first ply of the top is now put on—which is a piece similar to that of the side—and ironed to the side piece; a heavier piece is then laid on and ironed to the first; a square piece of the desired size is then cut from the material with which to make a brim, the center of which is cut out.

The inner edge is softened and the piece is pulled over the crown down to the brimboard; the crown and the brim are now joined together by ironing, being still further strengthened by ironing a piece of ribbon (stiffened muslin) over the seam, after which the brim is ironed flat; small pieces of stiffened muslin are ironed on to the front and rear of the upper brim to strength-

en it, then the brim is rounded to the required width.

The side crown is varnished and a piece of unstiffened, unbiased muslin is ironed to the first ply; the whole crown is now varnished and two pieces of plain muslin are laid together on the top and ironed fast, after which the whole body is varnished and dried, receiving two additional coats of varnish.

The plush is cut into three pieces biased for the side crown and upper brim, and oval for the tip; the merino for the under brim is cut square; the side crown and the tip are sewn together, leaving an opening at the side crown; this is termed the cover. The body, cover, upper and under brim are now ready; the finisher takes it and irons on the underbrim, then trims off the surplus merino at the edges.

The plush is fastened on the upper brim by wetting it with a sponge, and brushing and ironing it; the cover is drawn over the body, and the place of the seam marked. It is then laid on the bench and the nap brushed back from one side to prevent it being cut, as it has to be used later in the operations to hide the seam.

The plush is cut with a long pair of shears, at the marked place, and the cover is re-drawn over the body; the tip and the right side of the seam stuck with the hot iron; the left side has a long

nap covering the edge, and when it is skillfully put together, it completely hides the seam; it is stuck by applying the nose of the iron to the edge of the seam.

The plush is now moistened with a wet sponge and the nap brushed straight and ironed dry, after which it is again moistened with the sponge, brushed out and allowed to dry; then it is ironed and put in a revolving machine, which is so adjusted as to put the hat in contact with a velure; this gives it a finish and brings the tip to a good center.

As previously explained, for the convenience of handling, the block is made in five pieces; the expansion and contraction of the points necessarily leave their impressions on the hat, which to remove is taken from the block, and on the poutance and half block is ironed until it is even and the marks disappear.

A sheet of tissue paper—called a cap—is now fastened around it, and the “curler” takes and curls the brim by hand with shackle and iron; then places it on a hot baker, until the brim is soft, then sets it on the setting board.

The trimming of silk hats is somewhat similar to the operation on the derbys.

If the hats are to be satin lined, or “Stuck lining,” the satin is put on the block at the first

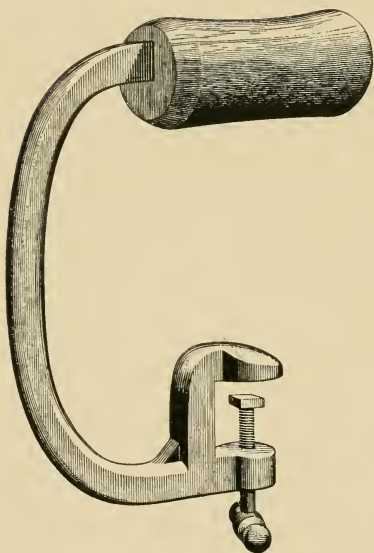
operation of making the body ; otherwise the silk inserted linings are made by the trimmer and put in.

TO IRON SILK HATS.

To iron or block a silk hat you should have a poutance and half block (see cut from Mast & Co.), and tip block, half round iron toliker, velvet lure and brush.

Take the hat to be ironed in your left hand and with a brim brush tap the edge of the curl and brush upper brim, always drawing one way, tapping the outside and brushing the inside until you have all the dust out ; also tap and brush the sides and top ; having screwed the poutance arm to counter or bench, and half block put on, turn out the sweat leather of the hat, and put it on the block ; brush it well with a stiff brush, and then the lure, drawing towards you all the time. Stand a little to the right of the poutance, hold the brim of the hat in your left hand, and begin ironing at the square where the tip and crown join, covering a space of about four inches long and two inches wide, drawing towards you ; it takes several strokes of the iron to do this ; while the place you have been ironing is still hot, take the half round iron toliker and draw towards you firmly several times, then repeatedly stroke it over in the same way with the lure.

Go all around the hat in this manner and then commence below and go around again until you reach the band ; then take the hat from the half



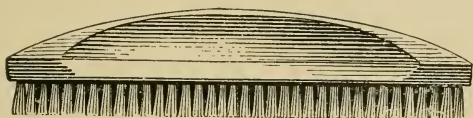
POUTANCE WITH HALF BLOCK.



BRIM IRON.

block, turn in the sweat leather, put the hat on the tip block, brush over with the stiff brush, then the soft brush to smooth it ; hold the hat

with the left hand so that the place where you want to iron will fit the block, then moving the iron with a circular movement, iron at first about one-fourth of the tip at one time, then duck-bill toliker to set it, then take the lure, and hold it on the top, turning the hat with your left hand on the brim to the right, the way of the nap.



STIFF BRUSH.

Straighten the nap on the upper brim, and with a hot brim iron apply it to the upper brim, drawing towards you, holding the hat by the brim in your left hand; finish by ironing the square of the hat while holding it in your hand; then go over the sides with the lure, drawing gently towards you.

In case you have marked the binding or band, touching either or both with the iron, take a wet sponge and touch it on the iron, then touch the band or binding, and the mark will disappear.

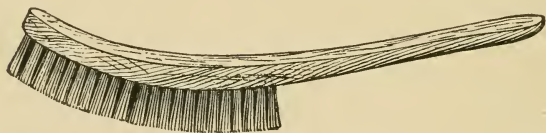
In the case of the hat being mashed it will have to be ironed several times over, on the mashed part, until it is smooth.

To renovate greasy silk hats put about two

tablespoonfuls of liquid ammonia in a tumbler of hot water, mop the greasy places with the solution with a sponge, until the spots disappear; then go over the hat with plenty of clean, warm water; then with a stiff brush, brush the nap out straight and dry, then iron.

RUFFLED SILK HAT.

In case a silk hat is much ruffled and the nap matted down by being carried in a hat box or otherwise, first brush out the dust, then go over it with a wet sponge, drawing it towards you the



BRIM BRUSH.

way of the nap; then with a brush straighten the nap, after which dry it on the cleaning machine, or in a warm place; when dry, brush nap out and iron.

SILK HAT POLISH.

Dissolve one ounce of Parafine wax in four ounces of benzine. To use this, have a small hat lure like those they give away with silk hats,

moisten the lure well with the solution and go all over the hat, crown and brim, drawing the lure in the same direction as the nap.

This plan will sometimes act as a substitute for ironing where the hat is not broken; it is quickly done.

This process is good for new hats in stock when the nap has become wavy.

Be careful not to use too much of the fluid.

Put it on the hat cleaning machine and polish with a cloth, as with derbys.

TO PUT ON MOURNING BANDS.

To put on the mourning bands which are fastened by a clasp is simple; you need only follow the directions on the box.

The broadcloth mourning band which is seamed, requires a little more care; take the number, one, two or three, as indicated on the box, then take the band in both hands and put it over the tip and work it down to the band, drawing it with a circular movement around the crown and going gradually downwards until you reach the brim, having the seam to the left side, on same side the bow is. Then smooth the hat over with the lure.

REMOVING GREASE SPOTS.

For removing little spots of stiffening on stiff hats have a bottle of alcohol with a small piece of a sponge at the end of the cork; touch the place with alcohol, rub it with your finger nail or the end of a file, then wash the place with the cork wet with alcohol.

For greasy bindings, rub them with a woolen rag wet with benzine.

THE OPERA HAT.

The opera hat in many respects is like a silk one, as the brim and tip are made of similar materials, viz., muslin stiffened with shellac.

It has a frame consisting of two steel rings, four springs, and four upright ribs hinged in the center; this is the arrangement that makes it possible to open and close it.

It is generally covered and lined with black corded silk.

It requires an expert to fix one of these hats when anything is broken, but if the brim gets out of shape, which is frequently the case, it can be properly adjusted by heating it until soft and working it with the fingers, or on a setting board, which is simply a thick board formed to fit the underside of a derby, silk, or opera hat; use the foot tolicker like conforming.

If the silk is badly creased by being closed for a considerable time, open, and dampen it all over with a wet sponge, and let it remain open until dry, when all the creases will be gone.

If the tip gets out of shape, put it on the tip block and iron it, having a cloth between the iron and the hat.

HOW FUR HATS ARE MADE.

Fur felt hats are made from the furs of various animals, the principal ones of which are the Beaver, Nutria or Coypou, Muskrat, Otter, Hare and Rabbit.

Beaver is the most valuable fur, but very few hats are made from it entirely. Next in value is the Nutria, afterwards the Otter, Muskrat, Hare and Rabbit respectively.

The quality of the fur varies according to the location on the body of the animal; on such water animals as the Beaver, Nutria, Muskrat and Otter, the belly contains the finest fur; while from the backs of such land animals as the hare and rabbit the best fur is obtained.

The skins of these animals are stretched and dried, and the dirt thoroughly brushed out of them.

Some of these skins are "carroted," that is to say, they are laid on a table fur uppermost, and

a nitrate of mercury solution, consisting of quick-silver, nitric acid and water, is applied with a stiff brush to the fur.

The skins are then laid in pairs fur sides together, and placed in a drying room until the desired effect is produced on the fur.

The object of "carroting" is to hasten the process of shrinkage or felting; some grades of fur cannot be made into a hat without first being "carroted."

After the skins have been "carroted," they are brushed to make the hair lie all in one direction, after which they are put through a machine, which is so adjusted that it pulls out all the long coarse hairs, leaving the finer hair attached to the skin.

In the next process the skins are placed in the fur cutting machine, which shaves the skin from the hair, leaving the fur all intact, and in that condition is carried onto a revolving apron, the skin in the meantime having fallen below in small shreds.

Very few, however, of the hat manufacturers cut the skins, as they prefer to purchase the fur from the hatters' furriers.

The fur is of various grades and packed in five pound bags and marked accordingly. Thus we have the W. C. Beaver (white carrot), Triple Ring Prime Back (B. H. B.), Best Hare

Backs (B. C. B.), Best Coney Backs (C. B.), Coney Backs, and other grades.

Experience has demonstrated that the best results are obtained by mixing various grades; if all carroted fur (stock) were used, a soft open felt would be the result, therefore raw stock (uncarroted) is mixed with carroted stock, in various proportions and grades, to make the desired quality of felt.

To make felt that is generally used in hats that retail at five dollars ~~per dozen~~ and upwards, Beaver and Nutria are mixed with Hare in right proportions; while for the cheaper grades of hats a mixture of Hare, Coney Backs and Filling (ground roundings and small pieces) are used.

On account of the high price of Nutria, it cannot be mixed with Hare Backs or other grades to make up into hats that sell to the retailer at fifteen dollars per dozen, although only a short time ago I saw a retail salesman offer a customer a soft hat (Nutria color) for \$2.25, declaring it was clear belly Nutria.

After the fur is cut, as previously explained, it is blown by means of a revolving brush into a long wooden box divided into six or more compartments; this box has revolving aprons ingeniously arranged, so that the fur is automatically and correctly graded; as the fur travels along with this apron, the pieces clotted with blood

(which are called dags) and small pieces of skin fall by gravity into the first compartment; the long thick hairs are carried and drop into the next compartment, and so on, until the last one is reached. By this operation all of the fur has been graded according to quality, the last being the best and finest grade.

In order for the manufacturer to get at the cost of each lot of hats he is making, he figures up the price of each mixing. Suppose he takes five pounds of this, ten pounds of the other, and fifteen pounds of another kind and mixes them altogether, thus making a thirty pound "mixing." He figures out the cost of each grade and adds them together, divides the number of pounds into the total cost, and the result is a net cost per pound; by this means the manufacturer can tell approximately what each hat will cost him, and will therefore put in as good a stock as possible for the price at which the hats are to be sold.

The mixing is done by a process of blowing, so that each fibre of each grade is thoroughly blown into and twined and intertwined, with the fibres of all the grades, thus making an absolutely uniform quality.

The fur is now ready to be made up into felt, and supposing it is desired to make a four ounce hat, the plan would be as follows: the operator

has a box containing twelve compartments, and into each compartment he puts four ounces of the fur, thus having a correctly divided material for one dozen hats, which is now ready for the "Former."

The "Fur Former" is a machine into which the fur is put, and by a mechanical arrangement forms it into the shape of a cone preparatory to being made into felt; this is done as follows: at the front of the machine is a revolving feed apron, which connects with a four sided box, at the end of which is a cylinder-shaped chamber with doors, inside of which there is a revolving table, which carries a perforated copper cone, on which the body is formed; to this is connected an exhaust fan or blower to draw the fur onto the cone.

A feeder stands at the revolving apron with a box containing one dozen hats, and another operator stands at the opposite end and places the cone on the revolving table and closes the door of the cylinder chamber. The feeder places on the revolving apron the stock for one hat, which is carried through the four-sided box into the cylinder chamber, where, by the action of the suction fan, the fur is drawn all around the perforated copper cone and is held there in close contact by the forced suction; the operator then opens the doors and throws a wet cloth on the

now fur covered cone and immediately wraps a second cloth around it, and puts a funnel-shaped tin cover over it, then dips the cone, fur, etc., into hot water, where they remain for about one minute; while this is being done a second operator places another cone on the revolving table, and the same process is repeated.

When the operator takes the cone, fur, etc., out of the water, he places it on a bench, removes the tin cover and cloths, inverts the cone, loosens the edges of the fur, and the newly formed hat falls on the bench like a wet bag.

Another operator, called the Hardener, now takes it in hand and squeezes out the water, opens it out flat, and taking several of them together, rolls and unrolls them many times in woollen cloths to harden or "fix" them; in case there are any thin places he covers them with additional fur; they are now ready for the sizer.

If they are intended to be sized by hand (as all finer grades generally are) the sizer takes three hats at a time to the sizing kettle, which consists of a trough, around which are several benches sloping towards it; the kettle is filled with hot water acidulated. The sizer takes the three hats and spreads them out flat on a cloth, one on top of each other; he then sprinkles hot water over them, and makes them into a roll covered with the cloth; he rolls them and un-

folds them many times or until they have shrunk to about one-half their original size.



FIRST SHAPE, THE FORMED BODY.

This process has to be very carefully done, because if in the operation the edges (sides) get stuck, there will be a streak in the finished hat,

running from tip to brim, and known to the trade as a "lightning rod."

When they have been manipulated until they are down to within two inches of the size required, they are then dried, and shaved, either by hand or machine (machine has revolving knives, like a lawn mower), and again rolled up, this time, however, singly, and without any cloth. This is called second sizing, and leather or wood pads, called gloves, are used, as they make firmer felt.

It is necessary for the body to be reduced to a certain measurement or size, and when this is accomplished the process is complete.



THE SIZED BODY.

The process of sizing by machinery is somewhat different. The "forms" are rolled in cloth and taken by two men, who operate a machine

called a "starting machine," which contains rapidly revolving rollers, and which is placed over a trough filled with hot water, and are folded and put through the rollers many times, until they are reduced a few inches each way; after which they are passed on to the sizers, who work on similar but smaller machines, where they are reduced or shrunk to the required size; this is the plan adopted usually for the medium and low grade hats.

Thus far the process is similar for both soft and stiff hats; as the soft hats are heavier, however, it is necessary that they have in them more "stock."

The hat is now dried and is ready for stiffening—and at this point the difference between the finishing of the soft and stiff hat begins.

To-day the derby hats are stiffened with wine, or alcohol stiffening, which is composed chiefly of shellac dissolved in alcohol.

There are two stiffening machines, one for the brims and one for the crowns, each supplied with a revolving brush to put on the solution; the brim is stiffened on both sides, but the crown is only stiffened on what will be the inside when finished.

The body is now dried, and in order to recover part of the alcohol used in the stiffening, the hat is put into an oven that has connections with

a condenser, and there subjected to steam heat. When dry the hat is thoroughly brushed, afterwards dipped in hot water containing a small amount of soda, then put in a vat of cold water containing a little acid.

But up to this point the "body" is in the shape of a small cone, or, more properly speaking, funnel shaped.

The next process is the "tip" (crown) stretching. This is done by means of a machine having prongs, in shape something like the bended fingers of your right hand interlocking those of the left hand. As the machine is revolved by the operator the motion stretches or widens the top or crown, which has previously been dipped in hot water.

The brim stretcher, in the next operation, works in a similar way, and turns out the brim, so that the "body" has now the rough appearance of a hat.

Dyeing follows the above; to-day aniline colors are principally used, as vegetable dyes, with the exception of logwood, are almost out of date.

This dyeing is done by means of a large wooden vat having a steam coil in the bottom, to heat the prepared liquid.

This process takes from two to six hours' duration, according to color desired, and from twelve to thirty-six dozen are treated at one time.

After being dyed they are well washed, after which they are ready to be blocked.

They are now taken to a "blocking" machine, and this is the first process that gives anything like a hat shape to the embryo hat.

This machine is a very ingenious contrivance; it has a large iron frame, in the center of which is a headpiece, composed of brass prongs, which expand and contract; it also contains "fingers" placed around the edge.

The "blocker" adjusts his machine to the desired size, and after immersing the hats in hot water, takes out one at a time, and puts it on the machine; he presses a lever, and the "fingers" grasp the edge of the brim and pulls it in a circle; by means of moving another lever the band, crown and brim of the hat are formed in one operation; while in this position cold water is poured over the hat, after which the levers are released, the hat taken out, and thrown into cold water, to "set"; it is then put in the hydro-extractor, after which it is taken to the drying room.

When it is taken out of the drying room, it is "squared up" (a stiffening solution applied to the inside of the crown with a brush), dried and steam blocked, that is to say, it is put on a wood block, the exact shape of which it is intended the hat to be when finished, and steam applied to

shape it and flatten the brim. Afterwards it is singed by means of a gas flame, brushed with a revolving brush, and then put into an iron steam heated oven to soften, preparatory for the hydraulic press. This press is strongly built of iron, with pump connections, and has a lever-locking appliance.

The hat thus softened by heat is put into the mold, and a tin brim plate adjusted to the brim, then the press is closed and locked and the water turned on and kept under a pressure of about 500 pounds for about two minutes, after which it is taken out, its surface is then free from wrinkles, and is ready for "finishing."

This "finishing" process is sometimes done in two operations, as follows: the brim is sandpapered first on a "brimmer," and then "lured," after which the crown is finished on a lathe, which consists of an upright revolving spindle with an iron plate containing two upright pins for the block to fit on.

The Finisher puts the hat on the block, and starts the lathe, holding a piece of sandpaper in each hand on the hat until it is smooth. He then "lures" it with a "lure" and grease, holding the "lure" on a hot iron or heater, then pressing it gently on the hat while it is revolving. He also uses the sandpaper and "lure" after the lathe has stopped.

The next process after finishing and examination by the Foreman, is to round the brim to the desired width, which is done as follows: the hat is put on a machine which fits firmly on the inside near the brim; a lever with a knife and gauge is passed around the brim and the uneven and superfluous width cut off. Some hats (flexibles) are now "edge stiffened," that is, a solution of stiffening is put on the edge of the brim to strengthen it.

The hats are now ready for the "curler." He puts it in a revolving plate, which heats the edge of the brim ready for the "edging up machine," which turns over the edge and irons it down the same as is done by the shackle and shell, by hand; they are then matriced, being first put on a hot baker to soften the brim.

The matrice (which is an iron formed in two parts, to the exact shape the brim is intended to be) is put into a hydraulic matricing press, made especially for the brims, on which the hat is put, afterwards the press is closed and pressure applied.

The "curler" then takes the matrice containing the hat from the press and removes it by taking one-half off at a time; this has to be done before it is quite cold, otherwise the shape will be spoiled.

The next operator takes it, and with the curl

planes and sandpaper makes the edges of the curl smooth and of the required width.

The hats are now ready to be trimmed; this consists of sewing on the band and binding and putting in the sweat leather.

Bindings on stiff hats to-day are mostly what are called "reversed," that is, they are put on the upper brim first by machine or hand, selvage edge outward, turned over and stitched by hand; they are then brushed with a revolving soft brush, "lured," and any small defects remedied, after which they are wrapped in tissue paper and packed in boxes.

Soft hats are stiffened with a water solution of shellac (which is in lieu of the alcohol solution used on stiff hats). They are dipped in this solution brim downwards as far as the intended width of the brim, then passed through iron rollers, taken out and dyed like stiff hats.

SOFT HATS.

There is a difference in the treatment of soft and stiff hats after they are dyed.

The better grades of soft hats are blocked by hand in hot water by pulling them over a wood block, after which a cord is put around the band, and the brim pulled flat; then they are dried, and

taken to the pouncing room, where they are passed through a machine containing small rollers covered with fine sandpaper, which takes off the coarse hairs, making them short and close, like cloth; this operation is confined to the brim.

The crown is "pounced" on a round block revolving on a lathe, and "squared" up, that is to say, a little stiffening of gum is applied to one side of the crown, that ^{part}~~point~~ which is to be the inside when the hat is finished.

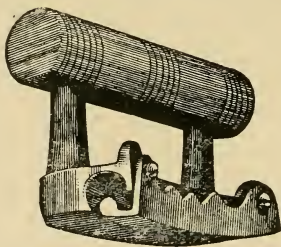
They are then taken to the drying room, after which they are ready for finishing.

The finisher takes the hat and pulls it over the proper size block, and ties a cord around the bottom to hold it to its place, and it is then ironed either by hand or machine.

The operation of the ironing machine is as follows: the operator places the block on the machine, which revolves in a horizontal position, after which he moistens the hat with a wet brush, and then applies the hot iron—which is heated by gas and operated by a lever and weights—which travels automatically over the hat.

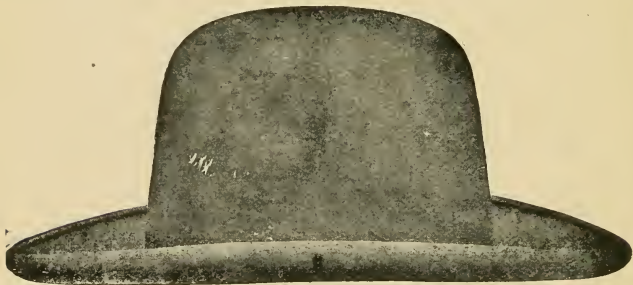
The hat is then removed from the machine and "pounced" either by hand or lathe, and "lured." The brim is pressed out with a hot shell and "pounced"—using fine sandpaper for the purpose. This is done by hand or machine, then "lured," when it is ready to be "curled."

"Curling" is turning the edge over ; this is also done by hand or machine ; the machine for the purpose has a round-edged wheel and guide, a



CURLING SHACKLE.

part of the machine being heated. The operator wets the edge of the brim and passes it through the machine as though he was binding it. When "curling" is performed by hand it is usually done with a hot shackle, similar to ironing.



COLUMBIA STYLE, BOSS RAW EDGE.

Soft hats, instead of being "curled," are sometimes steamed over a flange or wood mould,

which is made the exact shape the brim is intended to be.

The hats with high curled brims, also those turned up very much behind and down in front, and crushers, are shaped in this manner; this process is called steam flanging.

Hats that are "curled" have to be "flanged," that is, put on a wood form, which has the shape of the brim desired. They are put on this form, brim uppermost, when it (the brim) is moulded into shape, by means of a hot bag of sand, which is hung by a rope and pulley and which is made to rise and fall upon the brim; this operation gives it a close finish.

Generally, soft hats are "flanged" after being trimmed; then they are taken to the packer, who remedies any little defects, and softens or mellows up the hat if it is too stiff, by squeezing it and shaking the brim. Nearly all fine grades are mellowed in this manner.

HAT CURLS.

The "curl" is the edge of the brim turned up or over; a flat, straight brim has no "curl"; a soft hat with the edge of the brim rolled over is called a "boss raw-edge curl" if unbound; if the brim is not set up the word "boss" defines the "curl."

A stiff hat curl rounded at the edge is called a "roll curl," while a curl which turns at a straight angle is called a "D'Orsay curl," and measures half an inch, three-quarters, etc.; and thus you say "half-inch D'Orsay," or "three-quarter roll," as the case may be.

Measure the "curl" with the slide rule at the side, the width of the turn is the size of the curl.

LIGHT-COLORED SOFT HATS.

Soft hats in light colors having soiled or blemished places on them can be made to look fresh by touching over the places with a piece of number seven nought sandpaper, until the soiled place is removed, as follows:

First rub a little chalk over the soiled spot and then take a piece of the sandpaper about three by four inches in size and use it on the brim, and brush and tap with brush handle if any chalk remains; repeat the operation if necessary.

If the soiled place is on the crown, place the hat on a block smaller than itself; or in lieu of a block hold a folded piece of tissue paper to the place on the inside, then use chalk and sandpaper as above mentioned.

Sandpapering light-colored hats gives a new lustre to them.

SOFT HATS HAVING CREASE MARKS.

In the case of a soft hat having a deep mark or crease, caused by pacing or otherwise, insert the stretch block, and where it is most dented pack with tissue paper, until it looks smooth; then wet the place over with a clean, wet sponge, drawing the way of the nap, then let it dry and it will be all right.

Do not use the same sponge for light hats that has been used for black ones.

If the marks on the hats from being packed are only slight, they may be removed by wetting your thumb and rubbing on the line.

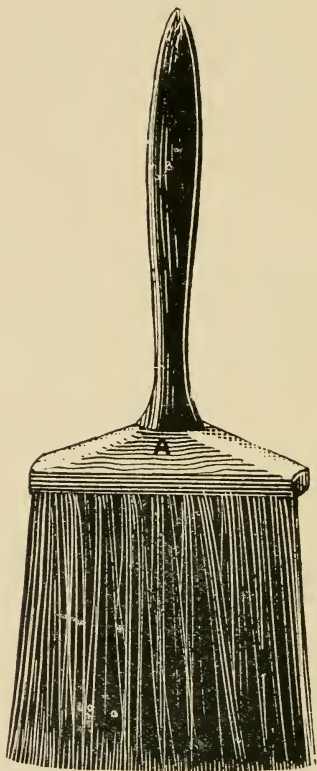
GREASE SPOTS.

If the soiled place is grease, get a little benzine in a tin, or cup, and with a piece of cloth rub it on the grease spot. If the grease is on the brim you must moisten it all over with the cloth dipped in the benzine, otherwise it will stain the hat; then let dry in a warm place.

The same process applies to crown, also to worn hats. In using the benzine care must be taken to keep it away from a flame of any kind.

PUTTING A NEW LUSTRE ON STIFF HATS.

For blacks, put them on the electric Hat Cleaning Machine (see cover), and apply brush to re-



BRUSH TO USE WITH CLEANING MACHINE.

move dust ; afterwards take a piece of dark cloth about eighteen inches long by six wide, hold opposite end in each hand ; begin operation at band, and work to crown with light pressure.

For black hats the cloth may be slightly greased.

For light-colored hats take a clean, wet sponge, and after removing dust with a brush, hold the hat in the left hand, and go over it evenly with a movement drawing towards you, beginning at the band and working upwards to the center of the tip ; then put it on the electric Hat Cleaning Machine to dry ; when dry, take a clean cloth and use as for blacks.

If you do not have a machine, put the hat on a rack, or shelf, until dry, then smooth it over with tissue paper, or a piece of clean muslin ; adopt this plan on the blacks in case you have no machine.

Treat the brim in the same way with the wet sponge, then put on the Electric Hat Cleaning Machine to dry, or in lieu thereof put on a shelf.

CREASING SOFT HATS.

Hold the hat in the left hand crown uppermost, front facing you, finger inside, thumb outside ; put your right hand in the same position in-

side at the rear; press outward with the end of the fingers of both hands, and you can then crease the hat in a straight line from point to point.

When you can do this quickly before a customer it pleases him immensely, and he at once desires to know how it is done, and will of course appreciate the favor if you show him how to do it, and will no doubt inform his friends, stating he has learned it from you.

TO DENT A HAT.

To dent a hat make a circular movement with the end of your finger in the place you desire the dent; if it is to be brought to a point, lay the hat on its brim on the counter and with both hands pinch up to point desired.

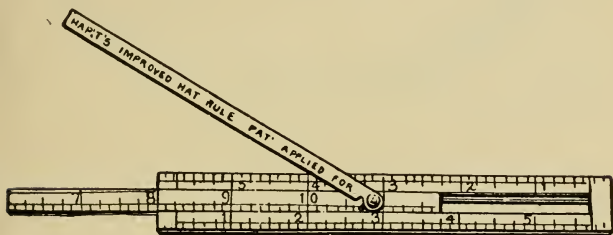
TO TELESCOPE.

To telescope, run down the crown to height desired, put the hat, crown downwards, on the counter and place your hand inside; begin in center with a circular movement, and press crown flat to counter. You can make this crease still neater by putting the stretch block inside the inner fold and expanding it until the folds are close together.

HAT SIZE—TO ASCERTAIN.

Comparatively few people understand how the size number of a hat—say seven, or seven and one-eighth—is obtained.

We follow the English method, which is as follows: The hat is measured from front to rear inside, which for illustration we will say is seven and three-quarters inches; then measured from side to side, which, suppose, is six and one-quarter inches; the two lengths are added together,



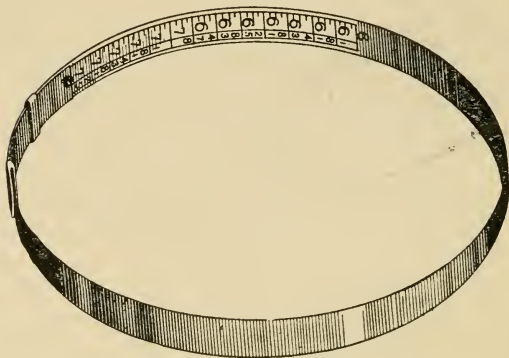
SLIDE RULE.

making fourteen inches, which, if divided by two, makes seven inches; this would be the size of the hat according to English measurement.

This plan is adopted in the United States, with the exception that one-eighth (or one size) is added; therefore, for this country, the hat mentioned above would be seven and one-eighth.

If you will notice, all imported hats (unless specially marked) are one size larger—according to the size marked—than ours.

This rule applies to all hats. Measure the length from front to rear inside where the head



MEASURING RING.

fits, then the width, from side to side, and add the two together, and divide by two, then add one size.

You will understand that hats can also be measured with the brass rings sold for that purpose (see cut).

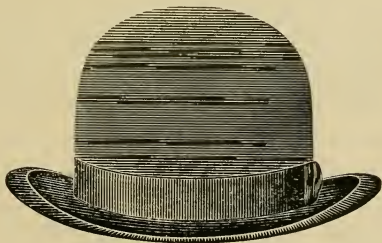
WEIGH OUTS.

In the manufacture of hats the term "Weigh Out" is very common. For example, I cite the following: before the process of forming is begun, the material is "weighed out." and some-

times this is "light" or scant weight; and thus has originated the phrase in the trade to define a man about whom you want to speak slightly, and you say, "He was weighed out light."

It is also applied when a workman gets a dozen or more hats to work on, and the term is used that "he has got his weigh out," instead of the usual term that he has "received work," although the hats may not have been weighed at all.

Another feature regarding hat operatives is that in case his wages amount to twenty dollars and thirty cents, he is paid the twenty dollars, The thirty cents goes over until the following week. Whenever an operative receives his "odd change" he has been either discharged or is leaving on his own accord.



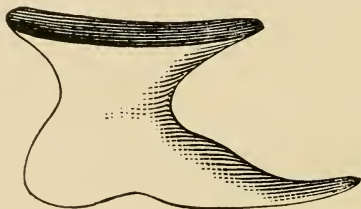
ROUND CROWN DERBY FLATISH SET.

That like cut is flatish set; brim can be set a little higher, then it would be called medium set; raised still higher, it would be called well set

TO SET AND FLATTEN THE BRIM OF A DERBY.

You can set up the brim of a derby by heating and putting it on the setting board and working up the sides with your fingers.

You can flatten the brim of a derby by heating it and putting half of the brim on the coun-



FOOT TOLICKER. (*inside down*)

ter or bench, using foot tolicker; then turn the other half around and repeat the operation; also working it a little into the shape desired with your fingers, keeping it warm all the time.

TO EYELET A HAT.

To eyelet a hat, measure the distance from the brim to where you want the eyelet, then with a tapering three-cornered file punch a hole through and ream with the file until it is large enough to squeeze the eyelet in; there are punches and cutters sold for this purpose.

STRETCHING SOFT HATS.

Stretching soft hats can be done with the stretch block; in doing this make it a loose fit, so it will contract a little afterwards.

STRETCHING DERBY.

Derbys must be heated before attempting to stretch them, and even then they cannot be stretched as much as soft hats.

STRETCHING SILK HAT.

Silk hats can be stretched but very little, and it takes some skill to do it. They must be heated like derbys.

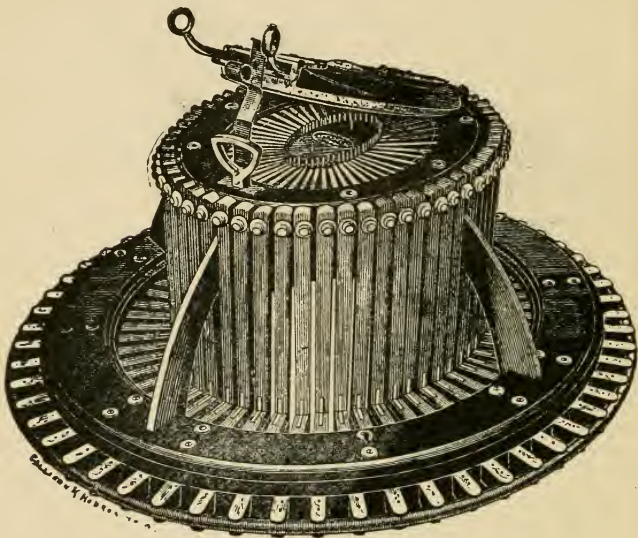
To take the curl or set out of a soft hat, or turn down the front, dampen it, and pass a hot iron over it, or hold it to anything warm, and pull and set it as you desire.

CONFORMING HATS.

The use of the conformateur is to change the shape of the hat oval at the band, in order to fit the head of a customer, and yet change other conditions of the hat as little as possible.

The difficulty in conforming is to keep the brim smooth and in its original shape.

The beginner should be very cautious not to soften or heat the hat too much.



CONFORMATEUR TO TAKE SHAPE OF HEAD.

Very long or very wide heads cause trouble in conforming.

In the first place, use the head piece as per cut, and put a piece of paper behind the spring in the lid; then put the head piece on customer's head, and see that all the pins are in line; bring

down the lid; take the scissors, and cut out on the line of the pin holes, and you have the impression.

Do not tell the customer that this is the shape of his head, because it is not, although fully ninety per cent. of the retail salesmen will assert to the contrary.

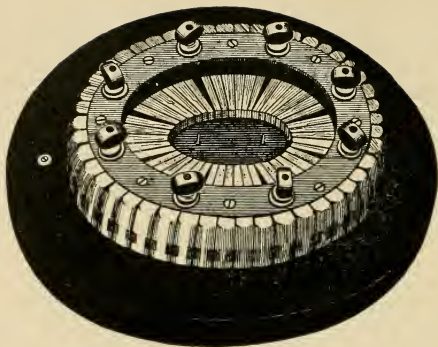
SHAPE OF A CUSTOMER'S HEAD.

If you desire to show the customer the exact shape of his head, put the formillion—after being set to his conform—on a piece of paper and draw a pencil line around it; cut it out and you have his head shape.

You can reduce this with a compass if desired.

Next put this paper impression on the two pins of the formilion, or shaping block; have the screws all loose and the keys open; press the keys carefully up to the paper impression, and tighten the screws.

If you desire the size "full," put the brass ring over the keys; then take the hat and heat the brim, especially that part near the sweat leather, being careful not to heat it too much; take a handful of packing tissue, or a pad about two inches thick stuffed with cotton (if made to fit a seven and three-eighths hat it will fill any size) and put it into the crown of the hat.



FORMILLION TO SHAPE THE HAT ON.

The object of this is to prevent the heat from softening the crown, and thus retain its shape. Having heated the brim of the hat over a stove, radiator, or a gas jet burning under a sheet of tin, put it on the formillion, and with the foot tolicker press the upper brim well all around to free it from wrinkles. Remove it from the formillion before it gets quite cold; turn the brim uppermost, and with your fingers and thumb work the brim into as nearly as possible to the same shape it was before it was conformed; sometimes you will have to re-heat it to do this; experience will enable you to perform this work quickly.

Silk hats are conformed in the same way, only more heat is used, as it requires a greater amount of heat to soften a silk hat than it does a derby.

DO NOT GET THE SILK HAT TOO SOFT.

In operating on a silk hat, be very careful not to get it too soft, and when the foot tolicker is used on one, always press in the direction the nap lies, because if you rub both ways the silk will be ruffled up.

In finishing the silk hat brush it straight and smooth with a hot brim iron.

If you do not have a conformateur you should have a long and a short set stick (Mast & Co.).

When the hat needs to be lengthened put some tissue paper in the crown and heat the brim and put in the long set stick, and screw out to desired length; work the brim with your fingers to make it even, and if necessary put the ends on the bench or set board and press the foot tolicker.

If the hat has to be made wide, proceed as above and put the short set stick in the sides, and screw to width required; then fix brim smooth as above.

In such cases as these, you will have to judge the form of your customer's head with your eye.

HOW TO TELL GRADES.

The only way to learn to know the qualities of hats is by comparison. Compare hats of which you know the price with other hats of the same

size. Note the trimming, bands and sweat leathers and the work in the trimming, see whether it is fine and neat or otherwise.

Few stiff hats below \$24.00 per dozen have "hand whipped leathers" or imported goat or calf leathers. Note the ends of the bow of the band, this is where you can best judge the quality. Good bands are thick (not necessarily coarse-ribbed) and silky. Poor bands are thin and open, and by holding them sideways you can see the cotton filling through the silk. Good bands have even edges, and look clear; poor bands are of uneven edges and look streaky.

The gold dies on the leathers indicate a better grade than silver ones. The gold or woven stickers for the tip are of better value than the silver ones. A good braid bow at the seam of the leather adds to the appearance of the hat.

The better grades of stiff hats are close on the nap and not "slacked" or "lured" so much as the coarser grades, which are longer on the nap and "lured" with grease to make them shine. Look carefully at the stiff hats to see if there are any signs of stiffening on the surface, this shows on a hat sometimes like slickness on a worn coat. Test the place by tapping it with your finger nail. If it feels hard or looks glassy it is the stiffening near the surface, and consequently defective. Also try the crowns by

squeezing them slightly. If they feel hard and brittle they are liable to break; also hold the front of the brim in your hand and shake it a little, and you can then judge if it is pliable enough not to break by handling, as some cheap grades are very apt to do. In a derby hat I would give preference to one with a higher grade of trimming and a lower grade of stock, than the reverse.

SOFT HATS.

Only by experience in comparisons can you get to know the grades of the hat itself. The finest soft hats are like a piece of buckskin, so close and tough that you can hardly distinguish the hairs of which they are composed. They are usually finished dull, no glaze or shine, while the coarser grades are softer with a flannelly feel and you can notice the coarser hair or fur of their composition.

Some grades of fifteen and eighteen dollars per dozen are filled with short stock and pounced close on machines so as to give them a fine look while they are new, and this sometimes deceives the inexperienced; but they soon come to pieces in the wear, not being as durable even as the longer stock hats at the same price.

Constantly compare hats of different makes of the same price, and observe the different points of felt, trimmings and color, the style, how the brim is set, good curls or otherwise, if sweat leathers are well stitched or giggered, and how the trimmings are put on.

Look inside the hat. A fine hat is short and clothly inside, and looks as though it had not been finished; while some of the coarser stock are either well finished inside by pouncing—which you can easily tell—or contain long hairs.

All hats, soft or stiff, should be heavier or thicker in the brim than on the crown. Soft hats with thin brims will not give the customer satisfaction in wear, for soft hats of \$15.00 per dozen and less cannot be made in wide brims so as to hold their shape, especially if intended for the South or West, where the wearer uses a hat more roughly than in the East.

The sweat leathers sold as imported leathers are much thicker and closer than those called domestic, and cost nearly double the price.

To tell the grade of a band unravel it and notice how thick the silk is and of what the filling is composed; and if the band is soft, flimsy, or firmly woven. All these details go into the cost of a hat, and consequently determines the quality.

All hats when received at the store should be examined for defects, and to see if they are like samples from which they were ordered.

When ordering hats by sample note the different points of the sample and try to impress them in your mind. This requires practice, but after a while you will become expert, and it is one of the best means of getting a knowledge of the points and grades of hats.

If you have the opportunity to carefully note how a hat, which you have sold or worn yourself looks after it has been worn a month or two, you will learn something useful from it.

There are many hat makers who would learn something about their own make of hats by adopting this plan.

KNOCK DOWNS.

Knock Downs are hats which are defective and are thrown out for that reason. The first branch of the business in which "Knock Downs" are detected is after they are sized. It is then too late for them to be remedied, and are consequently thrown out, mostly for having thin or uneven places in them, or "dags" caused by the oversight on the part of the workmen.

The next most prolific source in which "Knock Downs" are discovered is where they are exam-

ined after finishing. The defects found here may be as follows in stiff hats—for stiffening shown on surface—brims too thin or too soft—dags or “lightning rods,” etc., in soft hats, dags, “lightning rods,” weak places, or color, etc.

Seconds are mostly “Knock Downs,” or hats which were intended for a certain grade and failed to come up to the standard. These are usually trimmed up cheaper and sold at a discount.

CASSIMERES.

Cassimeres are hats made of felt in the shape of a silk hat.

Up to the branch of finishing they are made in a similar manner as a stiff hat or derby; on account, however, of being wider in the tip than at the band, they are finished on a block composed of three pieces; the reason this block is made in three pieces is to permit it being taken apart so it can be removed from the inside of the hat after it is finished.

These hats are covered with a cloth and ironed by hand, then sandpapered, and lured like a derby.

They are curled by hand with shackle and iron, and set on the setting board.

There is a tip inserted and ironed to the inside of the crown to strengthen it.

WOOL HATS.

Wool hats are now made almost entirely by machinery as follows: after the wool is washed and dried, it is carded on a carding machine.

In "forming" these hats the wool is fed into a carding machine, coming out at the opposite end in laps about eight inches wide, and is wrapped round a double cone, which revolves on rollers.

In order that two hats may be formed at one time, the operator—as soon as sufficient quantity of wool has accumulated on the rollers—divides the double cone form with shears, and slips the two forms from the rollers; they are then taken to a machine where they are hardened by the operation of steam, and sized, generally in large lots of twenty-four dozen and upwards in fulling machines, or "bumpers."

The subsequent processes are somewhat similar to that used on fur hats.

They are finished by sandpaper and "lured," much coarser sandpaper being used than what is needed on fur hats.

PANAMA HATS.

Panama hats are not made in the United States; they are plaited by the natives of South America, Cuba, Philippines, and Mexico, from the fibres of a plant which grows in those countries.

The name is derived from the port of Panama, which was about the first place from which this class of hats was received.

Panama hats are somewhat of an "unknown quantity," as their weaves and quality are so varied; the South American who understands the hat business has taken advantage of our lack of knowledge, and palmed off onto us so-called Panama hats at about three times their actual value; this is the direct result of the average North American thinking he knows the other man's game better than the other man himself.

I have handled thousands of Panama hats, and I assert that the closely woven cream ^{colored} ones are the best, the finer the fibre the better the hat, yet I have had hatmen tell me otherwise; some swear by the heavy thick round South American fibre, which are good wearing hats, but not the most expensive.

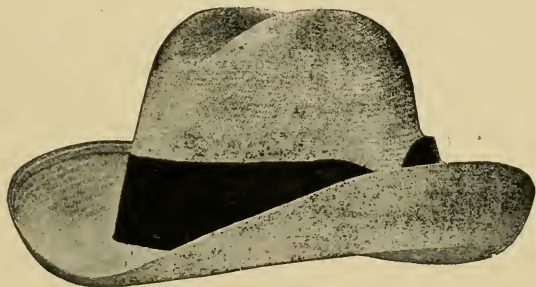
There is also the hat with an inserted top; you will notice on the inside a ring of raw ends around the tip; this style of hat is usually lined to cover up those ends.

Some people like these hats because they are soft and open, but they are not durable and lose color.

There is another kind of heavy coarse fibre hat of a light tan color; these hats turn red on being worn in a hot climate, and up to date no means have been found to re-bleach them. It is difficult to understand why people wear this kind of a hat, as they are not sightly and are warmer than a light fur hat.

WHAT TO DO TO PANAMAS.

For new hats, take a clean wet sponge, and dampen the hat where you wish to change it, as, for example, the brim, then by working it with your fingers you can put it into almost any shape; when the desired shape has been formed, lay it



ALPINE SHAPE PANAMA.

carefully away until it is dry. To make it conform to the shape you desire, it can be pinned to a board or box.

If the hat to be changed is like the cut, a square crown can be made by wetting it inside and putting in a stretch block, and expanding the crown, after which four dents can be made in it, or telescoped.

To roll a hat having a flatish brim, dampen it and fix it in the shape desired, then let it dry.

To clean the Panama that is a little soiled, go over it evenly with a clean wet sponge dipped in flour of sulphur, let it dry, and brush off with dry brush.

To renovate an old Panama it is necessary to have the blocks and tools of a renovator (see cover); take a soiled Panama, and first measure it to ascertain size, using size ring (see cut), then note its style, or what it is intended to be, and width of band; take off the trimming; with a brush wash the hat in warm water and soap, rinse, and put it in an earthen jar or zinc trough (not tin), containing ten gallons or more of cold water, into which dissolve one pound of oxalic acid; let it remain about three hours, then take out and rinse, and dry, after which it is ready to be blocked.

Blocking should be done by the aid of steam; get the size of block required, and put on it a

piece of white tissue paper ; then pull the hat over it and put a cord round it to keep it tight ; go over the hat with a wet sponge ; afterwards with a solution of white glue dissolved in water to about the consistency of thick cream, then take a wet sponge and dip it in flour of sulphur, and rub it all over the crown, after which put to dry ; when nearly dry brush the sulphur off the hat and remove from block ; make creases if they are required.

If you have flanges, put the brim on the flange required, and cover with a damp cloth, and iron until it is smooth and in proper shape.

If you do not have a flange, use a band block, and iron the brim smooth on the bench under a cloth ; then turn the edge to the shape wanted with the iron, or shackle ; dampen the brim with a wet sponge dipped in flour of sulphur ; set the brim in required shape on set board, or other board ; let it dry and then brush.

BRAIDED STRAW HATS.

There are many different kinds of braids used to make the braided straw hats ; some braids are made in China and Japan, others in England and France.

The manufacturer purchases these braids from some or all of the above sources, and prepares

them for bleaching by sewing them together as follows: The braid is dampened for a few hours, after which a few braids are sewn together by hand, then by a machine; the flat piece intended for the crown is made a little larger than the tip of the block for which it is intended; it is then bent over at the edges and the sides sewn; after which it is bent at right angle and the brim sewn flat—always in a circle; afterwards they are dipped in a solution of glue to stiffen them, the surplus being wiped off with a brush; they are then dried, and blocked by steam on plaster of Paris or wooden blocks, and ironed over a cloth; some are flanged on a spelter flange in a press.

Nearly all women's and children's hats are pressed in hydraulic presses.

The work of making these braided straw hats is performed almost exclusively by women.



TO CLEAN YACHTS AND OTHER STRAWS.

To clean yachts and other straw hats in a small way, have two tumblers of clean water, and into one put two large teaspoonfuls of hyposulphite of soda, and into the other two large teaspoonfuls of oxalic acid. Have a bucket of clean water, a small box of flour of sulphur, two small sponges, a nail brush, a piece of thin tin about four by five inches bent a little to conform to the side of a hat.

Take the hat, and with one of the sponges, dipped in water, clean off as much of the dirt as possible; then use the brush and water, using a little Ivory soap if necessary.

Dip one of the sponges in the hyposulphite of soda and go over the hat with it; take the other sponge and dip it in the oxalic acid, and rub this over the hat, beginning on the brim; take the piece of tin and hold it against the side of the hat on the upper side of the brim to prevent the oxalic acid touching the band of the hat, as the acid would discolor it. When applying the acid dip the sponge in the sulphur and rub a little on the hat, as this has the effect of filling in the dark places between the weave or braid.

When this is done put it on the Electric Hat

Cleaning Machine to dry, which will be done in about forty seconds; if you do not have a hat cleaning machine, use heat for drying the hat, and when dry brush with a dry brush, and it is then finished.

BRIM OUT OF SHAPE.

If the brim of the hat is out of shape, proceed as follows: if the brim is flat, lay it on the bench, and wet the brim; put a clean piece of cotton drill on the brim and iron it with a hot iron; if the hat is broken stitch the place and put a little of the white glue solution on the break, then cover it with a cloth and iron over it; if it is in the crown, put a wad of paper inside, holding it up with one hand, while you use the iron with the other, having a cloth between the iron and the hat.

If the break is in the brim, put the hat on the bench and iron it, wetting the brim, but first covering it with a cloth.

BUYING HATS.

In buying hats beware of freak styles and odd colors. When these are shown to you make a mental calculation of how many of them you

could sell, and reflect as to what you would do with the balance.

Go lightly on narrow-brimmed hats, soft or stiff, as they are costly to remodel into salable styles when they once get out of date.

High rolled brims in soft hats and very flat brims in derbys may be regarded as freakish, though there is a remedy for the latter style.

Freakish bands can be changed if the added expense justifies it.

Do not buy wide brimmed soft hats in cheap grades, except staples for country trade; they do not hold their shape.

CORK LINED HATS.

Cork tissue is stuck inside by means of gutta percha tissue and applying a hot pad; a sheet of thin plaited straw is pressed over a block, by steam or heat, held in place by a cord until the edge is fastened by a sticker put around it; it is trimmed up and put into a stiff hat. This is called straw lined. This was done twenty-five years ago.

TALKING HATS.

When you are selling hats Talk Hats ; don't talk weather, theatre, or sports ; get the contents of this book into your head, and entertain your customer by telling him some of the various processes which the particular hat you are showing undergoes before it reaches the wearer ; it will interest him and impress him with the idea that you thoroughly understand your business, and he will probably ever afterwards have confidence in your judgment.

Customer (trying on soft hat)—But what makes it so stiff?

Salesman—Well, you see, we have only just received them from the factory, and they have not yet had time to mellow ; all hats are stiff right after being flanged ; it only just needs mellowing up a little (takes it in his hand, rolls the brim through his fingers several times) ; there, it is all right now ; just the newness, that's all.

Customer—Price seems rather high for this hat.

Salesman—Not when you notice the grade of stock that is in it ; see how fine and close it is felted ; no coarse hairs, and will wear like leather. See this sweat leather ? It is imported goat, the best obtainable ; nothing like it for wearing, and

it gives a finish to the hat that cannot be excelled.

Customer—Well, just put my old one in a bag.

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Customer (rushing in) says: Why, look at this derby. I only bought it three days ago from you, and it is all out of shape; the hat must be "no good."

Salesman—Why, my dear sir, you have had this hat too near a stove, or laid it on the radiator; you see, a stiff hat placed on anything hot will become softened and lose its shape. The way they form the shape at the factories is while they are hot; now, if you will bring it around and leave it I will have it put on the block for you, and it will be all right; there is no defect in the hat.

HATS IN THE WINDOW.

Some salesmen have to be taught by experience that light colored hats can be ruined by letting them remain too long a time in the window.

Always put the light hats in the shady places, and turn them around so that the light will not strike them on the same place all the time.

Stiff hat crowns should not rest on any hard substance in the window ; if they do they will get out of shape.

To restore the shape of all such hats, you should have—for this and many other purposes—a round crown block, about six and three-quarter size, five inches deep ; put the hat on this block and hold it to a heated tin or stove and with the foot tolicker press the places back to the original shape, or as nearly as possible, which you can do very easily after trying a few times.



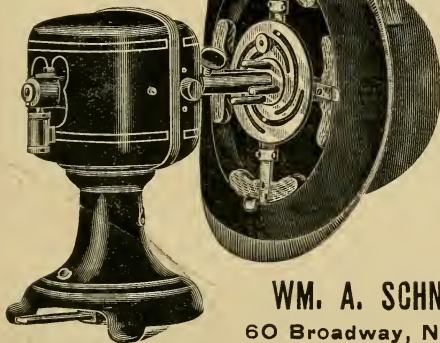
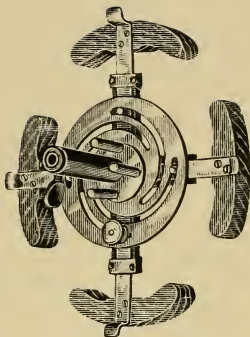
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